To: Kay Zillich[zillich@durango.net]; Connie Clementson[cclementson@blm.gov]; Janowiak, Matthew J[mjjanowiak@fs.fed.us]; Brent Lewis[b1lewis@blm.gov]; Wall, Dan[wall.dan@epa.gov]; Peter Butler[butlerpeter2@gmail.com]; wsimon@frontier.net[wsimon@frontier.net]; Mary
Personal Email/Ex. 6
From: Richardson, Lisa
Sent: Fri 12/5/2014 3:44:49 PM
Subject: Fwd: FW: Health of the Animas River Update

TU's latest message, in case you didn't get it:

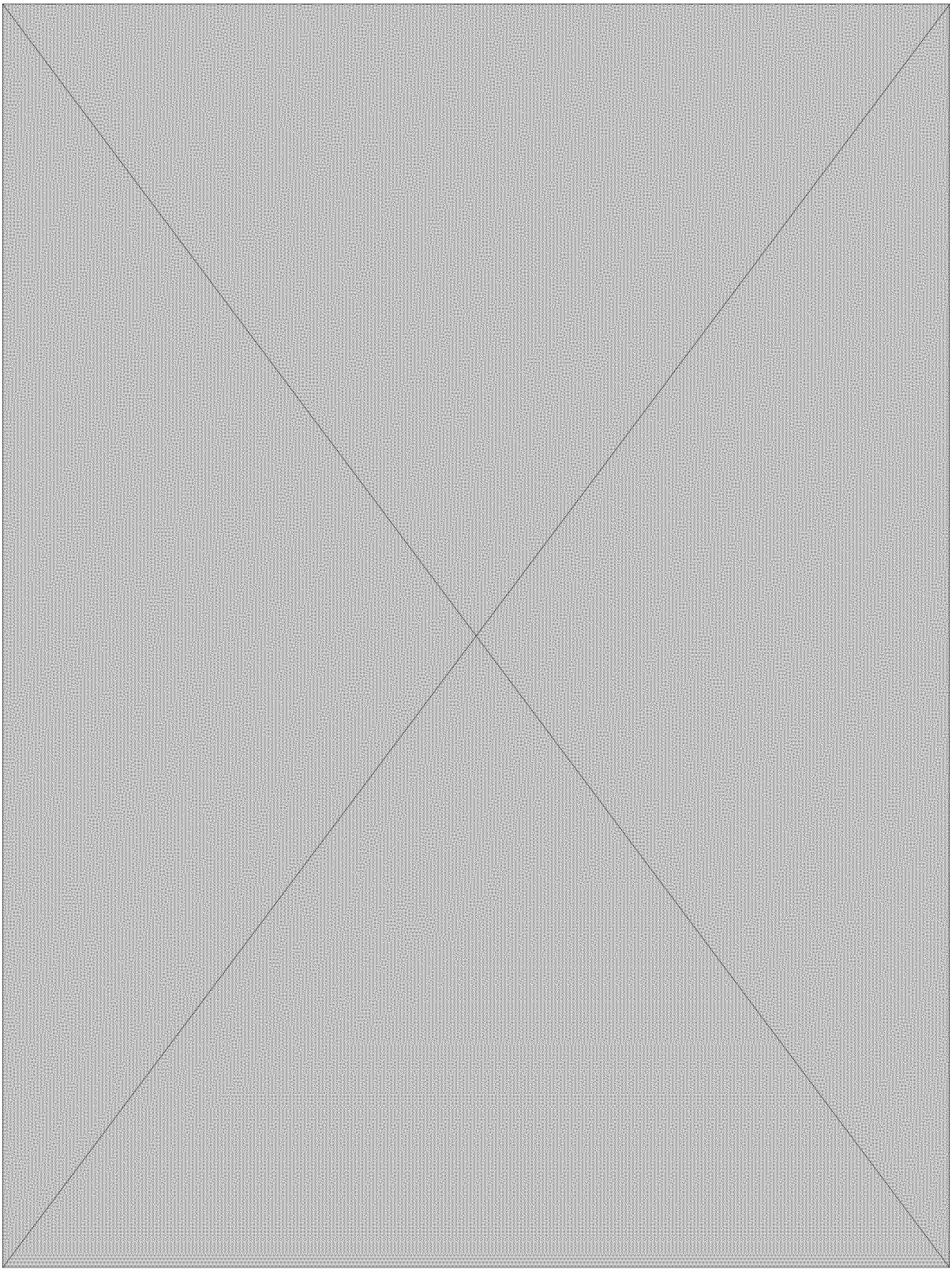
---------- Forwarded message ----------
From: **Shawn Merrill** <SMerrill@fciol.com>
Date: Thu, Dec 4, 2014 at 8:35 AM
Subject: FW: Health of the Animas River Update
To: "Richardson, Lisa" <lrichard@blm.gov>

From: Five Rivers Trout Unlimited [mailto:fiveriverstu=gmail.com@mail70.atl91.mcsv.net] **On Behalf Of** Five Rivers Trout Unlimited
Sent: Wednesday, December 3, 2014 6:18 PM
To: Shawn Merrill
Subject: Health of the Animas River Update

Update on the Health of the Animas River from Buck Skillen

View this email in your browser

Update on the Health of the Animas River



On the Animas,

Members and supporters of 5 Rivers TU, I want to bring you up to date on the latest information regarding the health of the Animas River Fishery. As I am sure you are aware, Jim White, CPW Biologist, gave us a presentation of the latest fish survey along with putting the latest data in perspective with recent history for the River. As you can see from the following write-up of the meeting, the general decline of the fishery is recognized, however, no smoking gun is evident. I believe the leaders of the Chapter must begin a concerted effort to better understand what is happening and to work with CPW and community leaders to pursue whatever remedies that are available to us. I intend to pursue this path. Don't hesitate to let me know of any questions you might have or interest in participating in the search for the "Why".

Thank you,

Buck Skillen
President

5RTU – General Meeting – Nov. 5, 2014.
Jim White, CPW Aquatic Biologist, Area 15 (San Juan and Upper Dolores River Basins).
State of the Animas Fishery

On Wednesday, 11/5, Jim White, CPW Fisheries Biologist, presented a program on the state of the Animas River Fishery. Over the last couple of years our local fishing community has noticed a significant decline in the fishery. That being said, this program was of particular interest and hope was for some insight into reasons for the decline.

Jim's presentation gave us an up to date look at the fish population as identified by the electro-shocking done this past summer. Methodology was noted but will not be discussed here. Suffice to say we can compare this summer's survey results with those of past years. And, the results are disturbing, albeit not surprising to those anglers regularly fishing the Animas over the years.

First off, it must be recognized that the Animas through the town reach is a stocked fishery that does not support robust natural reproduction. The primary impact to natural reproduction is dissolved heavy metals and the high silt loads to which the River is subject during the late summer and fall monsoons and spring runoff. In order to support a robust fishery in the town reach, a stocking regime that includes both brown and rainbow fingerlings and catchable rainbows is employed. The catchables (2500 in 2014) are stocked in the Standard Regulation Trout water. Most recently, 10 thousand brown and 10 thousand rainbow fingerlings are stocked in each of the Standard Regulation Trout Water and Gold Medal Reaches. The idea is for the fingerlings to grow up in the River and thus become like wild fish as they mature. Further, the stocking is by raft so the fingerlings are distributed throughout the reaches.

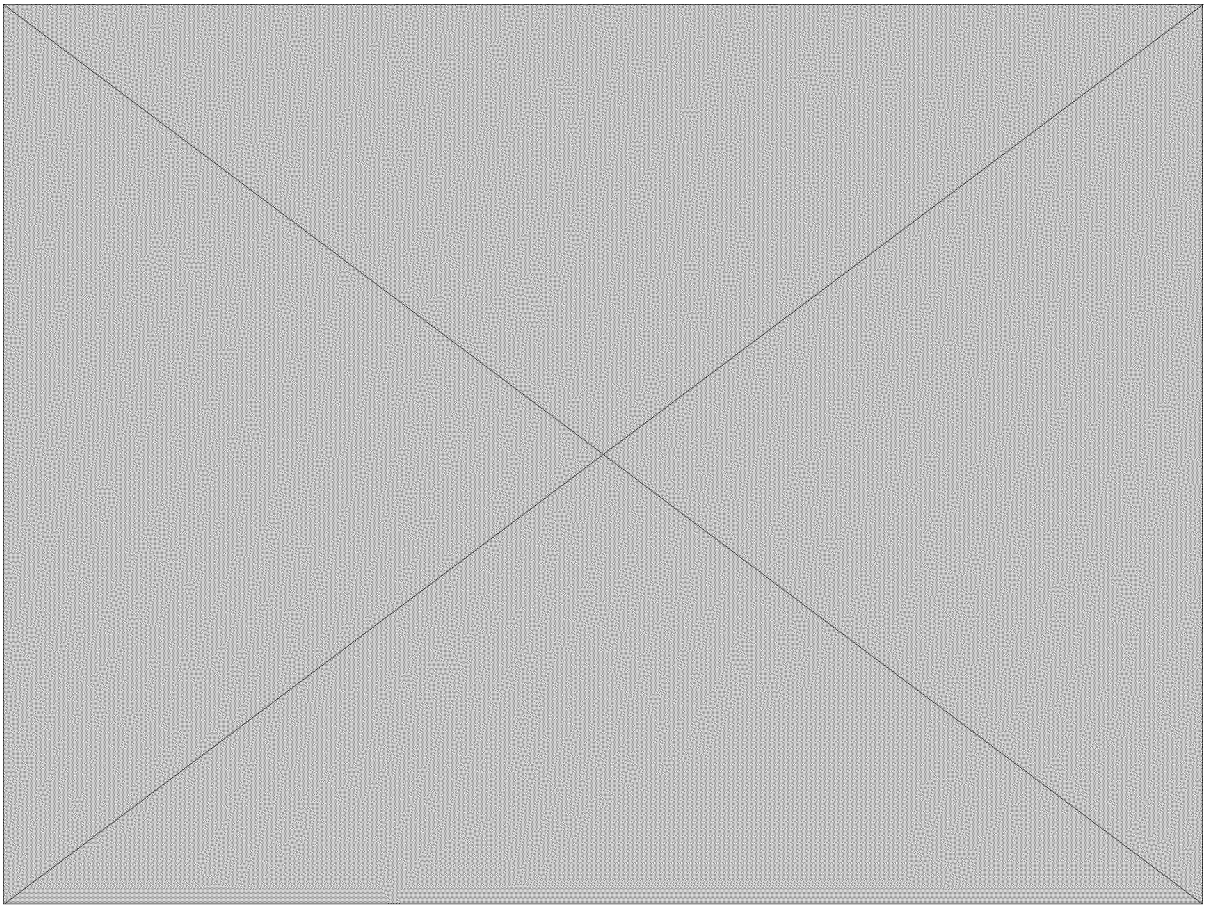
While Jim's presentation was long on current and historical population data, there was

no apparent “smoking gun” to account for the decline in the fishery. The population data shows a significant decline in the population of fish found in the Standard Regulation Reach (32nd St. to Lightner Creek confluence). The Gold Medal Reach continues to just barely qualify as Gold Medal with just over 60 pounds of trout biomass per surface acre. Unfortunately, the quality standard of 12, 14” fish per surface acre was not met this year. Further, the data shows a general decline in populations over the last 5 or so years.

So, why the decline; what is going on to impact the quality of the fishery? In an effort to look at environmental factors, Jim displayed water temperature and base flow data for the Town Reach. The average high temperature over the past year is in the mid 60’s degree F. This is not a dangerously high temperature for trout. Base flows in the Animas over the past 5 or 6 years is somewhat below the average of 729 cfs. Base flow is defined in Jim’s presentation as average monthly flow for July, August, and September.

Let’s look at water temperature conditions on the Animas. Jim reported on the Average over this summer. “Averages” begs the question of range, that is, what was the range of the highs over the past few years and are the highs trending higher in current years. This should be investigated. Also, temperature plots (daily highs) for the late spring, summer and early fall months for the last 10 years or so should be examined for correlation with the declining trend in the trout biomass.

The Base Flow trend is another troubling situation on the Animas. The downward trend seems to be correlating with the decline in trout biomass. There is no disputing the fact that the Animas River flows through an urban area with storm water runoff associated with rain and snow events. Storm water from the streets will, of course, carry residue from the roads that includes hydrocarbons in some measure. The higher the Base Flow the more the storm water will be diluted. Could lower base flows and heavy monsoon rains running off the streets combine to have a greater water quality impact? What about dust on snow events and earlier, more aggressive, snowmelt in the high country?



On the subject of water quality, questions have been raised as to the effect of the acid mine drainage in the Silverton on the Animas River, town reach. We can certainly document the decline of the Animas fishery in the canyon below Silverton down to and below the confluence with Cascade Creek. The Canyon Reach is listed by the EPA as impaired for a variety of metals contamination. As to the town reach, water quality testing results do not indicate impairment as defined by the Clean Water Act. Is it possible there are levels of metals that don't rise to impairment status but, nevertheless, impact the aquatic insect populations and the development of juvenile trout? Also, we need to factor in the aforementioned urban runoff situation as it affects water quality.

The status of the aquatic insect (benthic macro-invertebrates) population is of vital importance in attempting to understand what is happening to our fishery and why. This is the main food source for the trout in the river. Any degradation or reduction of the macro-invertebrates in the Animas will impact the development and year-to-year recruitment of stocked fingerlings. 5RTU has commissioned a bug study on the Animas Town Reach, collection for which was completed late September, 2014. The full report, comparing the 2014 findings with the results of the survey done in 2006 by Chester Anderson of B.U.G.s Consulting, will be available in the late spring of 2015. This report should bring needed insight to the health of the Animas Fishery through the town reach.

Up to this point the focus has been on the spring, summer and fall times of the year looking at flows and temperatures. In the last 6 years or so there have been at least one incidence of substantial anchor ice in the Animas River. Anchor ice is ice

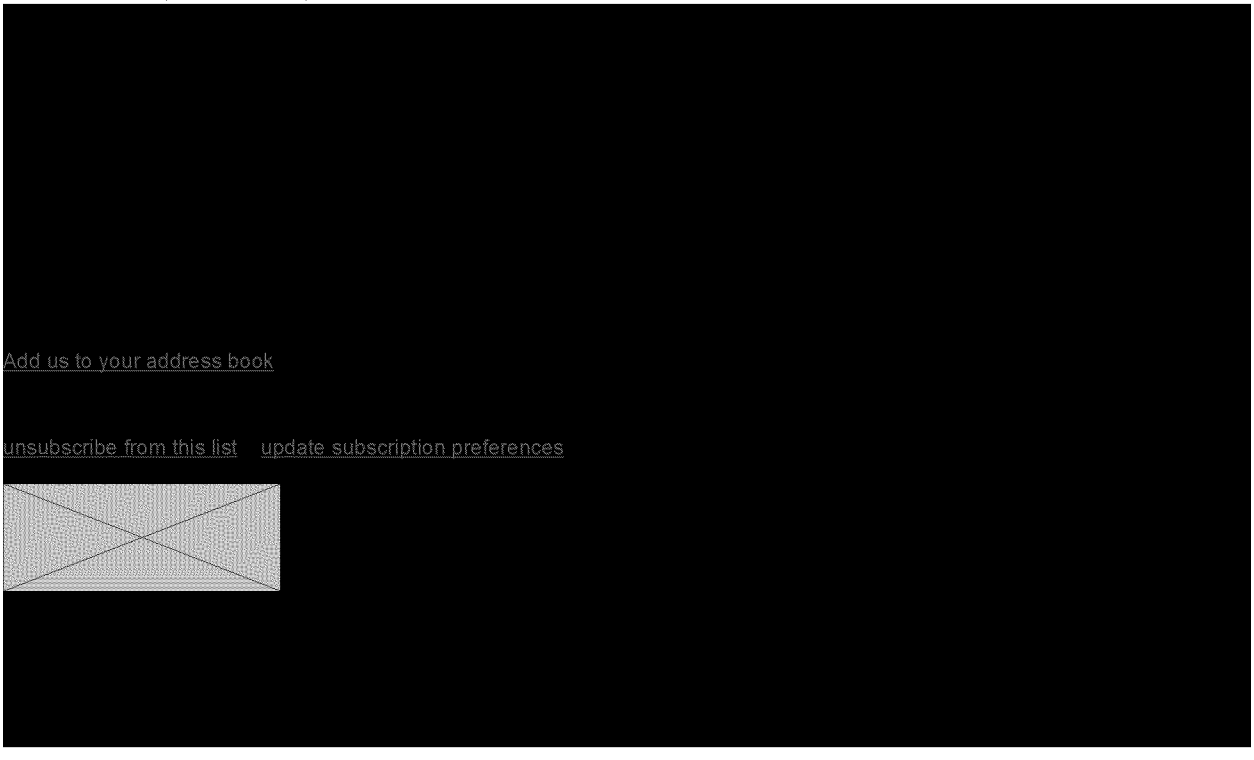
that develops from the bottom and entombs the rocks and substrate in ice. Needless to say, this has significant impact on aquatic insects and immature fish that are trying to stay alive in very cold water by staying on the bottom. The development of anchor ice is dependent on very low ambient temperatures coupled with low river flows. In fact, one of the local guides from the area related seeing dead fingerlings in the Basin Creek area in late November/early December several years ago, raising the question of survivability of the fingerlings being stocked. Jim indicated that this could have occurred during a cold spell in which the fish go deep into the cobble for warmth and could be susceptible to the development of anchor ice. Are we seeing low flows in the winter and very cold ambient temperatures impacting the fishery several years hence?

What to do going forward? Certainly, since it all starts with the "bugs", the bug study will be illuminating as to what food is available for the fish to grow and thrive. (Another prescient observation of the blindingly obvious.) From there we have to continue to parse out the environmental impacts to the fishery, particularly water quality (and quantity). In order to emphasize the criticality of this situation we need to quantify the economic impact that the fishery. Once quantified, the City and County officials need to be educated as to the economic importance of this resource to our community.

At the risk of being accused of analyzing this to death, I would recommend we pull together a small group to pursue greater understanding of the "Why" and not just to further document the "What". I will be recommending this to the Board and intend to move forward on this very promptly.

Respectfully submitted,

Buck Skillen, President, 5RTU



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